

What is claimed is:

- 5 1. A dual energy coupling device, comprising:
a first electric conductor; and
a second electric conductor,
wherein said first electric conductor is operable to transfer a
magnetic energy and an electric energy across an interface to said second
electric conductor in response to a reception of an alternating electric signal.
- 10 2. The dual energy coupling device of claim 1, wherein said first
electric conductor has a spiral configuration and said second electric conductor
has a spiral configuration.
- 15 3. The dual energy coupling device of claim 1, wherein said first
electric conductor and said second electric conductor are symmetrical relative to
the interface.
- 20 4. The dual energy coupling device of claim 1, further comprising:
a first substrate including a corrugated surface having said first
electric conductor formed thereon; and
a second substrate includes a corrugated surface having said
second electric conductor formed thereon.

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5. A dual energy coupling device, comprising:
a first power source operable to provide a first electric signal;
a first electric conductor in electrical communication with said first
5 power source to thereby receive the first electric signal when said first power
source is providing the first electric signal; and
a second electric conductor,
wherein said first electric conductor is operable to transfer a first
magnetic energy and a first electric energy across an interface to said second
10 electric conductor in response to a reception of the first electric signal.

6. The dual energy coupling device of claim 5, further comprising:
a first load in electrical communication with said second electric
conductor,
15 wherein a current drive signal flows through said second electric
conductor and said first load in response to a reception of said first magnetic
energy by said second electric conductor.

7. The dual energy coupling device of claim 5, further comprising:
20 a second power source operable to provide a second electric
signal;
a third electric conductor in electrical communication with said
second power source to thereby receive the second electric signal when said
second power source is providing the second electric signal; and
25 a fourth electric conductor,
wherein said third electric conductor is operable to provide a
second magnetic energy and a second electric energy across the interface to
said fourth electric conductor in response to a reception of the second electric
signal.

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8. The dual energy coupling device of claim 7, further comprising:
a second load in electrical communication with said fourth electric
conductor,

5 wherein a current drive signal flows through said fourth electric
conductor and said second load in response to a reception of said second
magnetic energy by said fourth electric conductor.

10 9. The dual energy coupling device of claim 5, further comprising:
a power source operable to provide a current control signal; and
a third load operable to be in electrical communication with said
power source in response to a reception of said first electric energy by said
second electric conductor and a reception of said second electric energy by said
fourth electric conductor to thereby receive the current control signal when said
15 power source is providing the current control signal.

20 10. The dual energy coupling device of claim 5, wherein said first
electric conductor has a spiral configuration and said second electric conductor
has a spiral configuration.

25 11. The dual energy coupling device of claim 5, wherein said first
electric conductor and said second electric conductor are symmetrical relative to
the interface.

30 12. The dual energy coupling device of claim 5, further comprising:
a first substrate including a corrugated surface having said first
electric conductor formed thereon; and
a second substrate includes a corrugated surface having said
second electric conductor formed thereon.

13. A dual energy coupling device, comprising:
a first electric conductor having a spiral configuration; and
a second electric conductor having a spiral configuration,
wherein said first electric conductor and said second electric
conductor are symmetrical relative to an interface.

14. A dual energy coupling device, comprising:
a first power source operable to provide a first electric signal;
a first load;
a means for inductively coupling said first power source and said
first load when said first power source is providing the first electric signal.

15. The dual energy coupling device of 14, further comprising:
a second power source operable to provide a second electric
signal;
a second load; and
a means for inductively coupling said second power source and
said second load when said second power source is providing the second
electric signal.

16. The dual energy coupling device of 15, further comprising:
a power source;
a third load; and
a means for capacitively coupling said power source and said third
load when said first power source and said first load are inductively coupled and
when said second power source and said second load are inductively coupled.

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17. A dual energy coupling device, comprising:
a first power source operable to provide a first electric signal;
a second power source operable to provide a second electric
5 signal;
a power source;
a load; and
a means for capacitively coupling said power source and said third
load when said first power source is providing the first electric signal and said
10 second power source is providing the second electric signal.

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